

New Records of *Argyroides flavescens* (Araneae: Theridiidae) from Japan

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ミナミノアカイソウロウグモの日本での新記録

Abstract *Argyroides flavescens* O. PICKARD-CAMBRIDGE, 1880 is newly recorded from Japan. The species closely resembles *A. miniaceus* (DOLESCHALL, 1857), but can be distinguished from the latter by the structure of female genitalia and the shape of embolus of male palp.

Since BÖSENBERG and STRAND (1906) recorded *Argyroides miniaceus* (DOLESCHALL, 1857) from Japan, many Japanese authors (YAGINUMA, 1960, 1986; SHINKAI & TAKANO, 1984; CHIKUNI, 1989; and others) have identified all of the Japanese red colored *Argyroides* spiders with it. After an examination of many specimens collected from various parts of Japan, we recognized two species of red colored *Argyroides* spiders occurring in the country. These are identified with *Argyroides miniaceus* (DOLESCHALL, 1857), and *A. flavescens* O. PICKARD-CAMBRIDGE, 1880. The latter is recorded from Japan for the first time and will be redescribed in this paper.

Before going further, we wish to express our hearty thanks to Dr. Hirotugu ONO, National Science Museum (Natural History), Tokyo, for his revising the manuscript of this paper. We are deeply indebted to Dr. Chiyoko OKUMA, Fukuoka, Mr. Akira SHINKAI, Tokyo, Mr. Yuji MATSU-URA, Tokyo, Mr. Katsumi HASUNUMA, Saitama, Mr. Katsuhiko SUZUKI, Saitama, Mr. Seiji MATSUMOTO, Tokyo, Ms. Kiyoko KATO, Paraguay, and Mr. Tomoyuki KIMURA, Kanagawa for their offering various specimens used in this study.

Following abbreviations are used in this paper: BMNH, British Museum of Natural History, London; MCSN, Museo Civico di Storia Naturale, Genova; NSMT, National Science Museum (Natural History), Tokyo.

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Accepted July 4, 1996

Argyroides flavescens O. PICKARD-CAMBRIDGE, 1880

(Figs. 1, 3, 5, 7, 9)

Argyroides flavescens O. PICKARD-CAMBRIDGE, 1880, p. 21, pl. 28, fig. 1a-d. (Syntypes from Sri Lanka, preserved in BMNH, not examined.) — CHRYSANTHUS, 1963, p. 739, figs. 67-68. — ZHU & SONG, 1991, p. 135, fig. 6a-d.

Argyroides sumatranus THORELL, 1890, p. 247. (Syntypes from Sumatra, Indonesia, preserved in MCSN, not examined.) — WORKMAN, 1896, p. 17, pl. 17, figs. a-f.

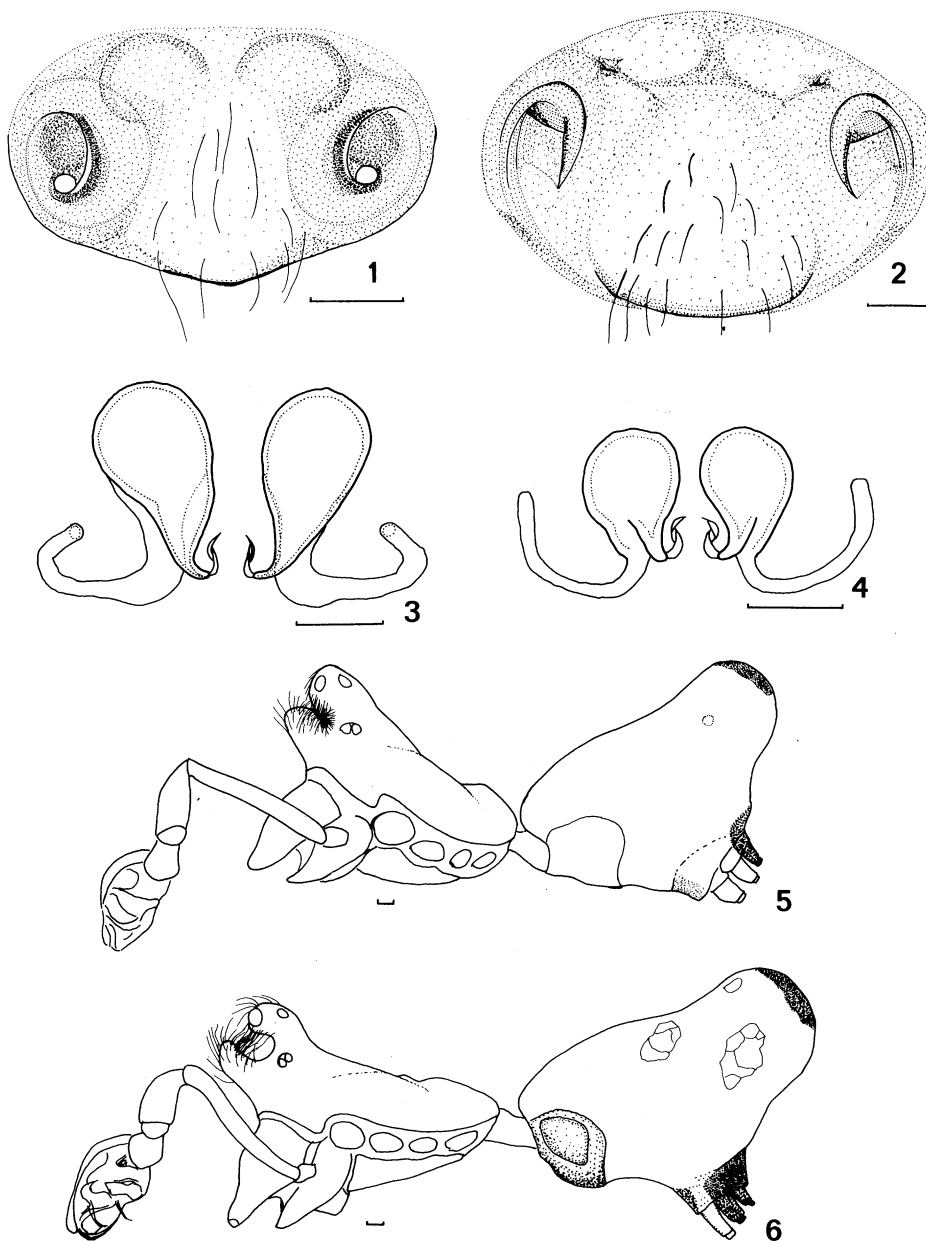
Argyroides miniaceus: CHIKUNI, 1989, pp. 34, 177, fig. 22 [nec *A. miniaceus* (DOLESCHALL, 1857)]

Specimens examined. JAPAN: 1 ♂, Tatsugō Amami-ōshima Is., Kagoshima Pref., 30-XII-1995, A. TANIKAWA leg.; 3 ♀ 1 ♂, 2-I-1996, Shimizu, Amami-ōshima Is., same collector (NSMT-Ar 3335); 2 ♀ 1 ♂, Nago, Okinawajima Is., Okinawa Pref., 26-VIII-1978, Y. MATSU-URA leg.; 1 ♀ 1 ♂, same place, 16-III-1996, A. SHINKAI leg. (NSMT-Ar 3336); 2 ♀, Ginoza, Okinawajima Is., 26-III-1987, S. MATSUMOTO leg.; 2 ♀ 1 ♂, 19-VII-1987, 1 ♀, 15-III-1996, Nakagusuku, Okinawajima Is., A. SHINKAI leg. (NSMT-Ar 3337-3338); 1 ♀, Kamichi, Miyakojima Is., Okinawa Pref., 24-IX-1978, Y. MATSU-URA leg.; 3 ♀ 1 ♂, Mt. Banna-dake, Ishigakijima Is., Okinawa Pref., 30-VIII-1978, Y. MATSU-URA leg. (NSMT-Ar 3339-3341); 1 ♀ 2 ♂, Taketomijima Is., Okinawa Pref., 26-VIII-1990, collector unknown; 1 ♂, 11-VIII-1985, 2 ♀ 2 ♂, 30-XII-1990 (NSMT-Ar 3342), Shirahama, Iriomotejima Is., Okinawa Pref., A. TANIKAWA leg.; 1 ♂, 30-III-1983, 1 ♀ 2 ♂, 10-VIII-1985, Urauchi, Iriomotejima Is., same collector; 6 ♀ 7 ♂, 17-VIII-1985, Kūra-gawa, Iriomotejima Is., same collector (NSMT-Ar 3343); 1 ♂, 3-V-1984, Komi, Iriomotejima Is., same collector; 3 ♀ 2 ♂, 27-III-1985 (NSMT-Ar 3344), 1 ♀, 12-VIII-1985, Ōhara, Iriomotejima Is., same collector; 1 ♀ 1 ♂, 26-XII-1990, Haemida, Iriomotejima Is., same collector; 2 ♀ 1 ♂, Iriomotejima Is., 8-IX-1978, Y. MATSU-URA leg., 2 ♀, Iriomotejima Is., 9-VIII-1985, A. TANIKAWA leg. (NSMT-Ar 3345-3346); 2 ♀ 3 ♂, Iriomotejima Is., 25-X-1985, collector unknown (1 ♂: NSMT-Ar 3347). MALAYSIA: 2 ♀ 1 ♂, Bintan Is., 27-VII-1995, T. KIMURA leg. PAPUA NEW GUINEA: 4 ♀ 3 ♂, Wau, 19-VIII-1982, Y. HIRASHIMA leg. (NSMT-Ar 3348).

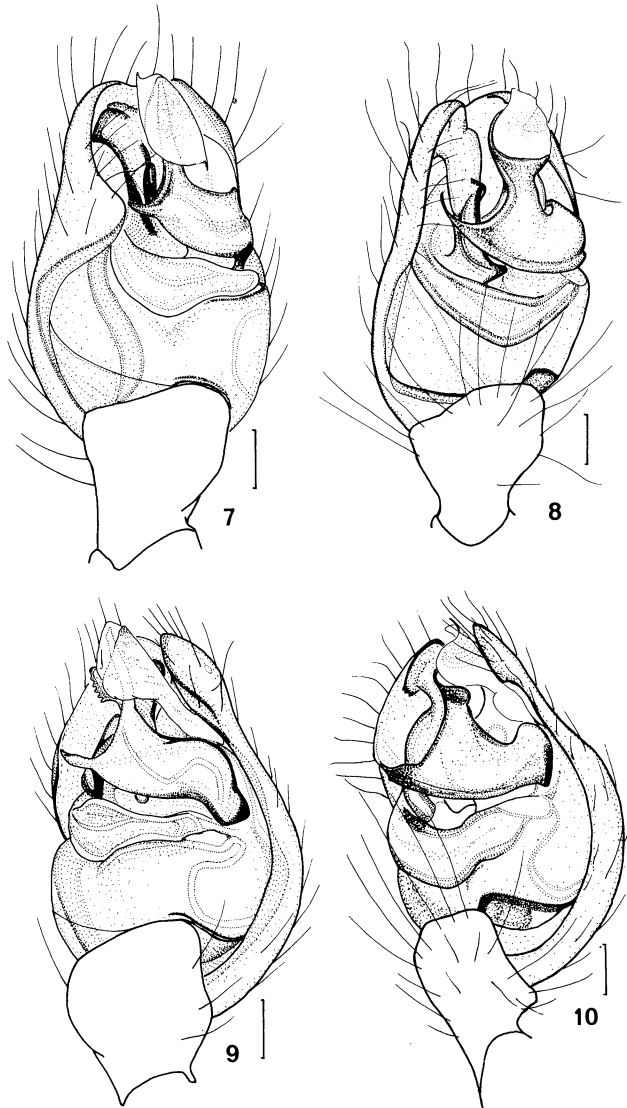
Specimens examined for comparison. *Argyroides miniaceus* (DOLESCHALL, 1857): 2 ♀, Kamariya, Yokohama-shi, Kanagawa Pref., 1-IX-1977, K. KUMADA leg.; 1 ♀ 1 ♂, Miyakejima Is., Tokyo, 5-VIII-1978, K. SUZUKI leg. (NSMT-Ar 3349); 4 ♀ 1 ♂, 3-VIII-1980, 1 ♂, 7-VIII-1980 (NSMT-Ar 3350), 1 ♂, 14-VIII-1980 (NSMT-Ar 3351), Shimoda, Shimoda-shi, Shizuoka Pref., A. TANIKAWA leg.; 4 ♀ 4 ♂, Irōzaki, Kamo-gun, Shizuoka Pref., 3-VIII-1976, K. KATO leg. (NSMT-Ar 3352-3355); 1 ♀ 1 ♂, same place, 12-VIII-1985, K. KUMADA leg. (NSMT-Ar 3356); 2 ♀, Kumomi, Kamo-gun, Shizuoka Pref., 27-VII-1992, K. KUMADA leg.; 2 ♀ 1 ♂, Magejima Is., Nishino-omote-shi, Kagoshima Pref., 21-VII-1981, K. HASUNUMA leg. (NSMT-Ar 3357); 1 ♀ 2 ♂, Gēda-gawa, Iriomotejima Is., Okinawa Pref., 19-VII-1991, A. TANIKAWA leg. (NSMT-Ar 3358).

Description (based on the Japanese specimens). Measurement (in mm). Total length ♀ 2.89-5.27, ♂ 2.73-4.29; carapace length ♀ 1.40-1.63, ♂ 1.40-1.98; width ♀ 0.94-1.14, ♂ 0.88-1.22; abdomen length ♀ 1.56-3.51, ♂ 1.37-2.06, width ♀ 1.11-3.19, ♂ 0.85-1.50; height ♀ 1.66-5.07, ♂ 1.24-2.02. Length of legs of 1 ♀ 1 ♂ from Iriomotejima Is., Okinawa Pref. (NSMT-Ar 3346-3347) as shown in Table 1.

Female and male: Carapace length/width ♀ 1.35-1.49, ♂ 1.59-1.71. Length of leg



Figs. 1-6. 1, 3, 5. *Argyrodes flavescens* O. PICKARD-CAMBRIDGE, 1880.—1. Epigynum (NSMT-Ar 3340). 3. Female genitalia, dorsal view (NSMT-Ar 3345). 5. Male, lateral view (NSMT-Ar 3341). 2, 4, 6. *Argyrodes miniaceus* (DOLESCHALL, 1857).—1. Epigynum (NSMT-Ar 3353). 3. Female genitalia, dorsal view (NSMT-Ar 3352). 5. Male, lateral view (NSMT-Ar 3354). (Scales : 0.1 mm.)



Figs. 7-10. 7, 9. *Argyrodes flavescens* O. PICKARD-CAMBRIDGE, 1880.—7. Male palp, ventral view (NSMT-Ar 3340). 9. Same, retrolateral view (NSMT-Ar 3340). 8, 10. *Argyrodes miniaceus* (DOLESCHALL, 1857).—8. Male palp, ventral view (NSMT-Ar 3354). 10. Same, retrolateral view (NSMT-Ar 3354). (Scales: 0.1 mm.)

I/length of carapace ♀ 6.43-8.04, ♂ 6.70-7.03. Male palp as shown in Figs. 7 and 9. Abdomen triangular in lateral view (Fig. 5), length/width ♀ 1.10-1.41, ♂ 1.33-1.70, height/length ♀ 1.06-1.44, ♂ 0.93-1.08. Female genitalia as shown in Figs. 1 and 3. Coloration and markings in alcohol. Female and male: Carapace reddish brown

Table 1. Measurement of leg segments of *Argyrodes flavescens* O. PICKARD-CAMBRIDGE, 1880 (in mm; ♀/♂).

Leg	Tarsus	Metatarsus	Tibia+Patella	Femur	Total
I	1.40/1.40	3.41/3.19	3.64/3.54	3.61/3.41	12.06/11.54
II	0.94/1.01	1.72/1.76	2.10/2.08	2.21/2.28	6.97/7.13
III	0.72/0.68	0.98/0.91	1.11/1.09	1.30/1.41	4.11/4.09
IV	0.86/0.90	1.04/1.66	2.08/1.95	2.31/2.15	6.29/6.66

(orange in life). Legs brown to dark brown (black in life), the fourth tarsus often yellow, the femora sometimes with yellow annulation. Abdomen pale yellow (orange in life), with several pairs of silver spots on the dorsal and lateral surfaces, and with two black spots on the top and at the posterior end (Fig. 5).

Range. Japan (Nansei Islands), China (ZHU & SONG, 1991), Sumatra, Indonesia (THORELL, 1890), Sri Lanka (O. PICKARD-CAMBRIDGE, 1880), Malaysia and Papua New Guinea.

Remarks. This species closely resembles *Argyrodes miniaceus* (DOLESCHALL, 1857), but can be distinguished from the latter by the structure of female genitalia (Figs. 1-4) and the shape of embolus of male palp (Figs. 7-10).

摘 要

Argyrodes flavescens O. PICKARD-CAMBRIDGE, 1880 ミナミノアカイソウロウグモ(新称)を日本新記録種として報告した。本種は *Argyrodes miniaceus* (DOLESCHALL, 1857) アカイソウロウグモによく似ているが、両者は外雌器の形態や雄触肢の栓子の形状で見分けることができる。

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